SECTION VI

NMSS SPENT FUEL PROJECT OFFICE QUALIFICATION JOURNAL

Applicability

The NMSS Spent Fuel Project Office (SFPO) Qualification Journal implements NRC Manual Chapter 1246, Appendix A, Section VI, by establishing the minimum training requirements for a new staff member in SFPO. These requirements provide a basis of knowledge for: (1) performing technical reviews of various types of radioactive material package applications; (2) performing licensing for radioactive material package and spent fuel storage designs; (3) performing activities associated with the storage of spent fuel; and (4) performing safety inspections of entities engaged in the design, fabrication, and use of packages and installations for the transportation of radioactive materials and the storage of spent nuclear reactor fuel.

The SFPO Qualification Journal serves as a guideline for the development of a Program Office Qualification Journal, and establishes the minimum training requirements consistent with NRC Manual Chapter 1246. The Program Office Qualification Journal must provide traceable documentation to show that minimum requirements are met for each SFPO staff member.

The SFPO Qualification Journal consists of a series of qualification guides and signature cards. Each signature card is used to document task completion, as indicated by the appropriate signature block(s). The corresponding qualification guide establishes the minimum knowledge levels or areas of study that must be completed for each signature card.

Discussion

This Qualification Journal contains a qualification summary sheet, qualification guides, and signature cards. Signature Cards 1 through 7 are to be completed by each new staff member, irrespective of assigned work group. Signature Cards 8 through 10 are specific to the various work groups within SFPO. The new staff member is expected to complete only the signature card(s) applicable to his/her assigned work group. It may not be necessary to complete every requirement. At the supervisor's discretion, requirements may be deleted, or other requirements added, depending on the new staff member's previous experience, training, etc.

In order to support the review of upper tier documents, programs, and policies, the staff member's supervisor should consider assigning one or more specific reactor facilities, fuel fabrication and storage facilities (e.g., ISFSIs), and/or certificate of compliance holders/licensees, as reference facilities. The selection of a reference facility is intended to provide the staff member's management with the ability to tailor the qualification process to the experience and training level of the staff member, and to meet SFPO's needs.

The SFPO staff member is expected to use the most current version or revision of each document cited in this Journal. Most of the documentation is readily available either on the

NRC's internal web site, the NRC's Agencywide Documents Access and Management System (ADAMS), or the SFPO library. Some hard copies may exist elsewhere within SFPO, but caution should be exercised to verify that they are the current revisions before using them. Unless otherwise indicated, the staff member is to initial and date each appropriate requirement sign-off and insert the appropriate revision number after the reference.

It is recognized that some of the required formal training courses may not be immediately available. At his/her discretion, the staff member's supervisor may substitute an alternative course, provide another method to meet the requirement, or delete the requirement altogether. Any such change should be documented in this Qualification Journal.

This Qualification Journal incorporates several "checklists" currently used by supervisors and secretaries to assist in new staff member orientation and indoctrination. When appropriately completed, they should be included with this Qualification Journal. The use and/or amending of these checklists is at the discretion of appropriate supervisor or secretary.

The time necessary to complete this Qualification Journal will vary, depending upon the new staff member's previous experience and education, but within one year is SFPO management's expectation. However, the availability of required training courses and the new staff member's assigned workload may prolong the time period.

Attached to this Qualification Journal is an Appendix, *Post-Qualification Recommended Training*/*Reading*, listing a number of training courses and reading material which are recommended for further professional development following initial qualification. While none of this material is required for initial qualification, SFPO staff may wish to include some of these items in their individual development plans.

SFPO QUALIFICATION JOURNAL
QUALIFICATION SUMMARY SHEET

TECHNICAL REVIEWER
LICENSING PROJECT MANAGER
TRANSPORTATION PACKAGING AND DRY STORAGE SYSTEM SAFETY INSPECTOR

Name:_____

Position Title:_____

Section:_____

Date Training Started:_____

SIGNATURE CARDS

CARD 1, GENERAL ORIENTATION _____ _____
Supervisor Date

CARD 2, NRC FAMILIARIZATION READING _____ _____
Supervisor Date

CARD 3, 10 CFR REGULATIONS _____ _____
Supervisor Date

CARD 4, NRC MANAGEMENT DIRECTIVES _____ _____
Supervisor Date

CARD 5, NRC ORIENTATION TRAINING _____ _____
Supervisor Date

CARD 6, NMSS/SFPO ORIENTATION READING _____ _____
Supervisor Date

CARD 7, NMSS/SFPO TRAINING _____ _____
Supervisor Date

CARD 8, SPENT FUEL LICENSING SECTION _____ _____
Supervisor Date

CARD 9, TECHNICAL REVIEW SECTIONS A & B _____ _____
Supervisor Date

CARD 9A, CONTAINMENT/CONFINEMENT _____ _____
Supervisor Date

CARD 9B, CRITICALITY _____ _____
Supervisor Date

CARD 9C, MATERIALS _____ _____
Supervisor Date

CARD 9D, SHIELDING/RAD PRO _____ _____
Supervisor Date

CARD 9E, STRUCTURAL _____ _____
Supervisor Date

CARD 9F, THERMAL _____ _____
Supervisor Date

CARD 10, TRANSPORTATION AND STORAGE SAFETY AND INSPECTION SECTION

CARD 10A, REQUIRED READING _____ _____
Supervisor Date

CARD 10B.1, CORE FORMAL TRAINING _____ _____
Supervisor Date

CARD 10B.2, REGULATORY GUIDES _____ _____
Supervisor Date

CARD 10B.3, INFO NOTICES, ETC. _____ _____
Supervisor Date

CARD 10B.4, NUREGs _____ _____
Supervisor Date

CARD 10B.5, NRC INSPECTION MANUAL _____ _____
Supervisor Date

CARD 10B.6, INDUSTRY CODES/STDs _____ _____
Supervisor Date

CARD 10B.7, INSPECTION ACCOMPANIMENT _____ _____
Supervisor Date

CARD 10B.8, SAFETY ANALYSIS REPORTS _____ _____
Supervisor Date

QUALIFICATION BOARD CERTIFICATION

MC 1246, Section 08, "Oral Qualification Board," provides guidance on conduct of the Oral Qualification Board that should be used by the Board members. Additional guidance is provided below on documenting possible Board outcomes. For Qualification Boards involving inspectors, the Board shall also utilize guidance provided in MC 1245, Attachment 2, "Inspector Competencies," in assessing the inspector candidate's understanding of and appreciation for the NRC's organizational values of integrity, excellence, service, respect, cooperation, commitment, and openness.

Board Recommendations: The Board will document the results of their assessment in writing to the division director each time a Board examines an individual as follows:

a. If the Board's assessment is favorable, the recommendation will be to grant Full Qualification. Any areas where additional review was required (look-up items) must be completed by the individual and verified by an assigned member of the Board before forwarding the Board's decision to the division director.

b. If the Board has identified areas of weakness requiring formal remediation, the Board will identify the areas for improvement in writing and recommend that the individual appear before a Board for reexamination when the remediation activities are complete. The Board and the individual's supervisor will agree on a schedule for reexamination.

c. If the Board has identified performance deficiencies that could not be successfully addressed with a remediation effort, the board will document the full scope of the deficiencies and recommend that the individual not be remediated or reexamined.

d. A copy of each Qualification Board's results, identifying any weaknesses and deficiencies, will be placed in the individual's personnel file. The employee will receive a copy of the Board's findings and recommendation.

Re-examination Board: A Reexamination Board must include at least one individual from the original Board. The Board questioning during reexamination will focus on the areas of identified weakness. The Board may explore any area where weakness is identified during the conduct of the reexamination.

Board Documentation: The Board's decisions are forwarded to the division director for information. The form on the following page shall be used to document the Board's decision.

RESULT OF QUALIFICATION BOARD

Date of Oral Board:_____

Successful or Unsuccessful (circle outcome) Completion of Oral Board:

_____ Chairman	_____ Date
_____ Member	_____ Date
_____ Member	_____ Date
_____ Member	_____ Date
_____ Member	_____ Date

Qualification Completion/Inspector Certification Memo Issued:

_____ Supervisor	_____ Date

CARD 1
GENERAL ORIENTATION

(ALL STAFF)

NRC Welcoming Orientation completed _____

Spent Fuel Project Office Orientation Checklist completed *(if used)*

_____
Secretary Date

Supervisor's Checklist completed *(if used)*

_____
Supervisor Date

CARD 2
NRC FAMILIARIZATION READING

(ALL STAFF)

The following documentation should be read to develop a general understanding of the USNRC as an organization, from where its regulatory authority is derived, and the duties and responsibilities of its various offices. This information should be discussed with the staff member's supervisor (or as directed).

NUREG-1770, "Occupant Emergency Plan" _____

NUREG/BR-0118, "The White Flint North Complex" _____

NUREG/BR-0099, "The NRC Fact Sheet" _____

NUREG-1350, "USNRC Information Digest" _____

NUREG/BR-0164, "NRC Regulator of Nuclear Safety" _____

NUREG/BR-0298, "Nuclear Power Plant Licensing Process" _____

NUREG/BR-0217, "The Regulation and Use of Radioisotopes in Today's World" _____

NUREG/BR-0216, "Radioactive Waste: Production, Storage, Disposal" _____

NUREG/BR-0292, "Safety of Spent Fuel Transportation" _____

NUREG/BR-0010, "Citizen's Guide to U.S. NRC Information" _____

NUREG/BR-0215, "Public Involvement in the Nuclear Regulatory Process" _____

NUREG/BR-0282, "Nuclear Research Programs to Ensure Public Health and Safety" _____

NUREG/BR-0175, "A Short History of Nuclear Regulation, 1946-1999" _____

NUREG-0325, "USNRC Organizational Charts and Functional Statements" _____

NUREG-1614, "USNRC Strategic Plan" _____

NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions" _____

CARD 3
TITLE 10, CODE OF FEDERAL REGULATIONS (10 CFR)

(ALL STAFF)

Part 1, STATEMENTS OF ORGANIZATION AND GENERAL INFORMATION _____

Part 2, RULES OF PRACTICE FOR DOMESTIC LICENSING PROCEEDINGS AND ISSUANCE OF ORDERS _____

Part 9, PUBLIC RECORDS _____

Part 19, NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS: INSPECTION AND INVESTIGATIONS _____

Part 20, STANDARDS FOR PROTECTION AGAINST RADIATION _____

Part 21, REPORTING OF DEFECTS AND NONCOMPLIANCE _____

Part 25, ACCESS AUTHORIZATION FOR LICENSEE PERSONNEL _____

Part 26, FITNESS FOR DUTY PROGRAMS _____

Part 50, DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES _____

Part 51, ENVIRONMENTAL PROTECTION REGULATIONS FOR DOMESTIC LICENSING AND RELATED REGULATORY FUNCTIONS _____

Part 71, PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL (*Including the Statements of Consideration*) _____

Part 72, LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE (*Including the Statements of Consideration*) _____

Part 73, PHYSICAL PROTECTION OF PLANTS AND MATERIALS _____

Part 170, FEES FOR FACILITIES, MATERIALS, IMPORT AND EXPORT LICENSES, AND OTHER REGULATORY SERVICES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED _____

Part 171, ANNUAL FEES FOR REACTOR LICENSES AND FUEL CYCLE LICENSES AND MATERIALS LICENSES, INCLUDING HOLDERS OF CERTIFICATES OF COMPLIANCE, REGISTRATIONS, AND QUALITY ASSURANCE PROGRAM APPROVALS AND GOVERNMENT AGENCIES LICENSED BY THE NRC _____

CARD 4
NRC MANAGEMENT DIRECTIVES

(ALL STAFF)

2.7 "Personal Use of Information Technology" _____

3.1 "Freedom of Information Act" _____

3.2 "Privacy Act" _____

3.5 "Attendance at NRC Staff-Sponsored Meetings" _____

7.5 "Ethics Counseling and Training" _____

8.8 "Management of Allegations" _____

10.1 "Appointments, General Employment Issues, Details, and Position Changes" _____

10.14 "Employee Trial Period" _____

10.41 "Pay Administration" _____

10.42 "Hours of Work and Premium Pay" _____

10.43 "Time and Attendance Reporting" _____

10.62 "Leave Administration" _____

10.67 "Non-SES Performance Appraisal System" _____

10.77 "Employee Development and Training" _____

10.101 "Employee Grievances" _____

10.130 "Safety and Health Program Under the Occupational Safety and Health Act" _____

10.131 "Protection of NRC Employees Against Ionizing Radiation" _____

10.159 "Differing Professional Views or Opinions" _____

12.1 "NRC Facility Security Program" _____

13.4 "Transportation Management" _____

14.1 "Official Temporary Duty Travel" _____
(http://www.internal.nrc.gov/ADM/DAS/cag/Management_Directives/index.html)

CARD 5
NRC ORIENTATION TRAINING

(ALL STAFF)

Orientation Classes Offered By Professional Development Center

NRC: What It Is and What It Does _____

Regulatory Process _____

Orientation Self-Study Classes Offered On NRC Website *(As directed by the supervisor)*

PeopleSoft Human Resources Management System (HRMS or time and attendance) _____

Agencywide Documents Access and Management System (ADAMS) _____

Allegations _____

Computer Security Awareness _____

Other Orientation Classes Offered Throughout The Year *(As directed by the supervisor)*

Handling Sensitive Material _____

New Employee Ethics Training scheduled by OGC _____

Attendance At One (1) Each Of The Following Meetings (time - about ½ day each)

Advisory Committee on Nuclear Waste (ACNW) _____

Commissioners' Meeting _____

CARD 5
NRC ORIENTATION TRAINING

Miscellaneous

Tour the NRC Incident Response Center _____

CARD 6
NMSS/SFPO ORIENTATION READING

(ALL STAFF)

General

NUREG/BR-0137, "Nuclear Material Safety and Safeguards" _____

SFPO Office Instructions _____
(ADAMS Document Manager Folder:

"NMSS/NMSS-SFPO/Office Instructions") _____

SFPO Operating Plan _____

Interim Staff Guidance (ISG) memoranda (*all*) _____
(http://www.nrc.gov/reading-rm/doc-collections/isg/spent-fuel.html)

Regulatory Guide 8.29, "Instruction Concerning Risks from
Occupational Radiation Exposure" _____

10 CFR Part 71

NUREG/BR-0111, "Transporting Spent Fuel" _____

49 CFR Parts 171 - 177 *(familiarization)* _____

NUREG/CR-6407, "Classification of Transportation Packages
and Dry Spent Fuel Storage System Components According
to Importance to Safety" _____

NUREG-0383, "Directory of Certifications" (*3 volumes*) _____

IAEA Safety Standard No. TS-R-1, "Regulations for the
Safe Transport of Radioactive Material" _____

US DOT/NRC Memorandum of Understanding,
dated 7/02/79 (FRN 44FR38690) _____

NUREG-1609, "SRP for Transportation Packages for
Radioactive Material" _____

NUREG-1617, "SRP for Transportation Packages for
Spent Nuclear Fuel" _____

CARD 6
NMSS/SFPO ORIENTATION READING

NUREG/CR-5502, “Engineering Drawings for 10CFR71 Package Approvals” _____

Regulatory Guide 7.9“Standard Format and Content of Part 71 Applications for Approval of Packaging of Type B, Large Quantity, and Fissile Radioactive Material” _____

10 CFR Part 72

NUREG-1571, “Information Handbook on ISFSIs” _____

NUREG-1536, “SRP for Dry Cask Storage Systems” _____

NUREG-1567, “SRP for Spent Fuel Dry Storage Facilities” _____

Regulatory Guide 3.61, “Standard Format and Content for a Topical Safety Analysis Report for a Spent Fuel Dry Storage Cask” _____

NUREG 1748, “Environmental Assessments NMSS” _____

Quality Assurance

Regulatory Guide 1.28, “Quality Assurance Requirements” _____

CARD 7
NMSS/SFPO TRAINING

(ALL STAFF)

(*all conducted via the PDC and as directed by supervision*)

H-100, "Site Access Training" _____
OR
H-102, "NMSS Radiation Worker Training" _____

P-400, "Introduction to Risk Assessment in NMSS" *(NOTE: This is a requirement of the NMSS Office Director)* _____

Communicating with the Public _____

Conducting and Participating in Meetings _____

Effective Briefing Techniques _____

Media Training Workshop _____

Technical Writing for Supervisors and Their Staff _____

Acquisition for Project Managers:
(NOTE: This is a requirement of the NMSS Office Director.)
Overview (3 hrs.) _____

Developing an Independent Government Cost Estimate (3 hrs.) _____

Preparing Statements of Work (6 hrs.) _____

Organizational Conflicts of Interest (3 hrs.) _____

Contract Administration (6 hrs.) _____

WORK GROUP SPECIALTY TRAINING

The following signature cards contain the specialty training requirements for each Section in SFPO:

Spent Fuel Licensing Section (SFLS)
Technical Review Sections A & B (TRA/B)
Transportation and Storage Safety and Inspection Section (TSSI)

Each signature card may contain a mixture of reading and formal classroom instruction. The employee's supervisor has the discretion to modify the requirements as needed based on the employee's previous experience, education, and course availability. The employee's supervisor may add, delete, or substitute with other material (e.g., from the Appendix), for course(s) which will not be available during the nominal one-year qualification period.

There are six technical specialty disciplines comprising the bulk of the technical evaluations performed by the technical review staff: (1) containment/confinement; (2) criticality; (3) materials; (4) shielding/radiological protection; (5) structural; and (6) thermal. The employee's supervisor will assign the employee one or more technical specialty disciplines. The employee's supervisor and/or the technical specialty team leader(s) (TSTLs), if so designated, will determine what training within a technical specialty discipline is required based on the employee's educational background and experience. The technical specialty training listed here may not be all-inclusive, and may be adjusted as desired by the employee's supervisor or TSTL.

The Transportation and Storage Safety Inspection (TSSI) section signature cards consist of two sets. The first set, represented by Signature Card 10A, covers the specialty requirements for all TSSI personnel. The second set, represented by Signature Cards 10B.1 through 10B.8, is for transportation and storage safety inspector candidates *only*. Signature Cards 10B.1 - 10B.8 are part of a condensation of the former NRC Inspection Manual Chapter 1246, Appendix A, Section VI, "NMSS Headquarters Transportation Packaging and Dry Storage System Safety Inspector," qualification program with redundancies with other parts of the SFPO Qualification Journal removed, except as noted. Unnecessary and obsolete requirements have also been deleted. Consequently, the transportation and storage safety inspector candidates must complete Signature Cards 1 through 7 and Cards 10A and 10B in the Transportation and Storage Safety and Inspection section of the SFPO Qualification Journal.

CARD 8
SPENT FUEL LICENSING SECTION/WORK GROUP

Job Performance Measures

Perform one (1) licensing action as a project manager from the receipt of an licensing request (e.g., new package application, amendment request) to process completion (e.g., new certificate of compliance, amendment to an existing certificate of compliance), under the oversight of an experienced SFLS project manager.

_____
SFLS Project Manager

Become familiar with the technical review process, including RAIs and SERs, under the oversight of the appropriate technical specialty team leader (TSTL) and/or supervisor in the employee's assigned technical discipline (selected based upon the employee's experience and education). *This JPM is estimated to take approximately one week over a period of time to complete.*

_____
TSTL / Supervisor

Site visit to observe DSC loading/dry run activities. _____

Reading

IN 84-050 Clarification of Scope of Quality Assurance Programs for Transport Packages Pursuant to 10 CFR 50, Appendix B

_____

IN 87-033 Applicability of 10 CFR Part 21 to Non-licensees

_____

IN 91-021 Inadequate Quality Assurance Program of Vendor Supplying Safety-Related Equipment

_____

IN 91-039 Compliance with 10 CFR Part 21, "Reporting of Defects and Noncompliance

_____

IN 95-029 Oversight of Design and Fabrication Activities for Metal Components Used in Spent Fuel Dry Storage Systems

_____

IN 96-040 Deficiencies in Material Dedication and Procurement Practices and in Audits of Vendors

IN 97-051 Problems Experienced Loading and Unloading Spent Nuclear Fuel Storage and Transportation Casks

IN 97-057 Leak Testing of Packaging Used in the Transport of Radioactive Material

IN 99-029 Authorized Contents of Spent Fuel Casks

BL 96-04 Chemical, Galvanic, or Other Reactions in Spent Fuel Storage and Transportation Casks

CARD 9
TECHNICAL REVIEW SECTIONS/WORK GROUPS A & B

(Note: Indicate assigned specialty group(s) by checking the box after group name.)

All Disciplines

Job Performance Measures

Perform one (1) technical review, including a request for additional information (RAI), if appropriate, and safety evaluation report (SER) under the oversight of the appropriate specialty team leader and/or supervisor, in the employee's assigned technical discipline.

_____
TSTL / Supervisor

Become familiar with the licensing process from the receipt of an licensing request (e.g., new package application, amendment request) to process completion (e.g., new certificate of compliance, amendment to an existing certificate of compliance), by working with an experienced SFLS project manager. *This JPM is estimated to take approximately one week over a period of time to complete.*

_____
SFLS Project Manager

CARD 9A
CONTAINMENT/CONFINEMENT [ ]

NUREG/CR-6487, “Containment Analysis for Type B Packages with Various Contents”

_____

RG 7.4, “Leakage Tests on Packages for Shipment of Radioactive Material”

_____

ANSI N14.5, “Leakage Tests on Packages for Shipment”

_____

CARD 9B
CRITICALITY [ ]

NUREG/CR-5661, “Recommendations for Preparing Criticality Safety Evaluations of Transportation Packages”

_____

NUREG/CR-6361, “Criticality Benchmark Guide for Light-Water Reactor Fuel in Transportation and Storage Packages”

_____

ANSI/ANS-8.1, “Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors”

_____

ANSI/ANS-8.15, “Nuclear Criticality Control of Special Actinide Elements”

_____

ANSI/ANS-8.17, “Handling, Storage, and Transport of LWR Fuel Outside Reactors”

_____

ANSI/ANS-8.21, “Fixed Neutron Absorbers” _____

CARD 9C
MATERIALS [ ]

ASME B&PVC, Section II, Part C, “Specifications for Welding Rods, Electrodes, and Filler Meta _____

ASME B&PVC, Section II, Part D, “Material Properties” _____

ASTM Specifications *(general familiarization)* _____

CARD 9D
SHIELDING/RADIOLOGICAL PROTECTION

49 CFR 173, Subpart I _____

10 CFR 835 _____

40 CFR 190 _____

40 CFR 19 _____

ANSI/ANS 6.1.1, “Flux to Dose Rate Conversion Factors” _____

ANSI N14.1, “UF6 Packages” _____

Reg Guide 8.8, “Information Relevant to Ensuring the Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Reasonably Achievable”

_____

Reg Guide 8.10, “Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Reasonably Achievable”

_____

CARD 9E
STRUCTURAL [ ]

RG 7.6, “Design Criteria for the Structural Analysis of Shipping Cask Containment Vessels”

_____

RG 7.8, “Load Combinations for the Structural Analysis of Shipping Casks for Radioactive Material”

_____

NUREG/CR-1815, “Recommendations for Protecting Against Failure by Brittle Fracture in Ferritic Steel Shipping Containers Up to Four Inches Thick”

_____

NUREG/CR-4554, “SCANS (Shipping Cask Analysis System) A Microcomputer Based Analysis System for Shipping Cask Design Review”

_____

NUREG/CR-6007, “Stress Analysis of Closure Bolts for Shipping Casks”

_____

CARD 9F
THERMAL [ ]

RG 3.54, “Spent Fuel Heat Generation in an Independent Spent Fuel Storage Installation”

_____

ASTM Standard Practice for Thermal Qualification of Radioactive Material Packages”

_____

CARD 10
TRANSPORTATION AND STORAGE SAFETY AND INSPECTION SECTION/WORK GROUP

CARD 10A
REQUIRED READING

49 CFR Part 397, Subpart D _____

NUREG-1608, “Categorizing and Transporting LSA and SCO” _____

NUREG-1660, “US Specific Schedules of Regulations for Transport of Specified Types of Radioactive Materials Consignments” _____

NUREG/BR-0024, “Working Safely in Gamma Radiography” _____

RAMREG-001-98, “Radioactive Material Regulations Review” (USDOT) _____

Atomic Energy Act of 1954, as amended _____

Energy Reorganization Act of 1974, as amended _____

Nuclear Waste Policy Act of 1982, as amended _____

NUREG/BR 0195, “NRC Enforcement Manual” _____

CARD 10B.1
CORE FORMAL TRAINING

	Initials	Date
Fundamentals of Inspection Course (G-101)	_____	_____
Inspecting for Performance Course (G-303 or G-304)	_____	_____
Effective Communications for NRC Inspectors	_____	_____
OSHA Indoctrination Course (G-111)	_____	_____
Site Access Training (H-100)	_____	_____

CARD 10B.2
REGULATORY GUIDES

The inspector's supervisor should discuss these policies and practices with the inspector to ensure that he/she has a full and complete understanding of the material.

1.28 Quality Assurance Requirements (Design and Construction) _____

1.33 Quality Assurance Program Requirements (Operation) _____

3.60 Design of an Independent Spent Fuel Storage Installation (Dry Storage) _____

3.61 Standard Format and Content for a Topical Safety Analysis Report for a Spent Fuel Dry Storage Cask _____

7.7 Administrative Guide for Verifying Compliance with Packaging Requirements for Shipments of Radioactive Materials _____

7.9 Standard Format and Content of Part 71 Applications for Approval of Packaging of Type B, Large Quantity, and Fissile Radioactive Material _____

7.10 Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material _____

8.29 Instruction Concerning Risks from Occupational Radiation Exposure _____

CARD 10B.3
INFORMATION NOTICES (IN),BULLETINS (BL) AND GENERIC LETTERS (GL)

The inspector's supervisor should discuss these policies and practices with the inspector to ensure that he/she has a full and complete understanding of the material.

IN 84-050 Clarification of Scope of Quality Assurance Programs for Transport Packages Pursuant to 10 CFR 50, Appendix B

_____

IN 87-033 Applicability of 10 CFR Part 21 to Nonlicensees _____

IN 91-021 Inadequate Quality Assurance Program of Vendor Supplying Safety-Related Equipment

_____

IN 91-039 Compliance with 10 CFR Part 21, "Reporting of Defects and Noncompliance

_____

IN 95-029 Oversight of Design and Fabrication Activities for Metal Components Used in Spent Fuel Dry Storage Systems

_____

IN 96-040 Deficiencies in Material Dedication and Procurement Practices and in Audits of Vendors

_____

IN 97-051 Problems Experienced Loading and Unloading Spent Nuclear Fuel Storage and Transportation Casks

_____

IN 97-057 Leak Testing of Packaging Used in the Transport of Radioactive Material

_____

IN 99-029 Authorized Contents of Spent Fuel Casks _____

BL 96-04 Chemical, Galvanic, or Other Reactions in Spent Fuel Storage and Transportation Casks

_____

GL 91-05 Licensee Commercial-Grade Procurement and Dedication Programs

_____

The inspector's supervisor should discuss these policies and practices with the inspector to ensure that he/she has a full and complete understanding of the material.

NUREG 1600	General Statement of Policy and Procedures for NRC Enforcement Actions: *(Electronic version only)*
NUREG/CR-6314	Quality Assurance Inspections for Shipping and Storage Containers
NUREG/CR-6407	Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety

CARD 10B.5
NRC INSPECTION MANUAL CHAPTERS (MC) AND INSPECTION PROCEDURES (IP)

The inspector's supervisor should discuss these policies and practices with the inspector to ensure that he/she has a full and complete understanding of the material.

MC 0102	Oversight and Objectivity of Inspectors and Examiners at Reactor Facilities	_____
MC 0300	Announced and Unannounced Inspections	_____
MC 0610	Inspection Reports	_____
MC 0620	Inspection Documents and Records	_____
MC 1330	Response to Transportation Accidents Involving Radioactive Materials	_____
MC 1301	Response to Radioactive Material Incidents that Do Not Require Activation of the NRC Incident Response Plan	_____
MC 1302	Action Levels for Radiation Exposures and Contamination Associated with Materials Events Involving Members of the Public	_____
MC 2681	Physical Protection and Transport of SNM and Irradiated Fuel Inspections of Fuel Facilities	_____
MC 2690	Inspection Program For Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations	_____
MC 2700	Vendor Inspection Program	_____
IP 60851	Design Control of ISFSI Components	_____
IP 60852	ISFSI Component Fabrication By Outside Fabricators	_____
IP 60853	On-Site Fabrication of Components and Construction of an ISFSI	_____
IP 60854	Preoperational Testing of an ISFSI	_____
IP 60855	Operation of an ISFSI	_____
IP 60856	Review of 10 CFR 72.212(b) Evaluations	_____
IP 60857	Review of 10 CFR 72.48 Evaluations	_____

CARD 10B.6
INDUSTRY CODES AND STANDARDS

The inspector's supervisor should discuss these policies and practices with the inspector to ensure that he/she has a full and complete understanding of the material.

American Society of Mechanical Engineers (ASME)/NQA-1, Quality Assurance Program Requirements for Nuclear Facilities

_____

ASME Boiler and Pressure Vessel Code *(applicable parts of Sections III, V, and IX)*

_____

CARD 10B.7
INSPECTION ACCOMPANIMENTS

The inspector should accompany certified inspectors on at least four (4) inspections. If possible, two of these inspections should be of 10 CFR Part 71 activities and two of 10 CFR Part 72 activities. The following is a guide for material that the inspector should study and discuss with the lead inspector during these inspection accompaniments. The inspector's supervisor may also discuss these items, as appropriate, following any of the inspection accompaniments.

1. The Inspection Program
2. Scheduling and Preparation for Inspections
3. Scope of Inspection
4. Entrance/Exit Interviews
5. Conduct of Inspection and Accumulation of Data
6. Post-inspection Activities of Inspectors
7. MCs 0610 and 2690 Inspection Reports (including the use of Form 591S)

Record of Accompaniments

1. Location/Facility: _____
   Inspection Dates: _____
   Inspection Type (71/72): _____
   Successful Completion: _____
   Lead Inspector/Supervisor

2. Location/Facility: _____
   Inspection Dates: _____
   Inspection Type (71/72): _____
   Successful Completion: _____
   Lead Inspector/Supervisor

3. Location/Facility: _____
   Inspection Dates: _____
   Inspection Type (71/72): _____
   Successful Completion: _____
   Lead Inspector/Supervisor

CARD 10B.7
INSPECTION ACCOMPANIMENTS

4. Location/Facility: _____
Inspection Dates: _____
Inspection Type (71/72): _____
Successful Completion: _____
Lead Inspector/Supervisor

CARD 10B.8
SAFETY ANALYSIS REPORTS

The inspector should become generally familiar with Safety Analysis Reports for the packaging or storage systems for which the NRC has issued a certificate of compliance and the independent spent fuel storage facilities for which the NRC has issued licenses.

The inspector should review the appropriate sections of a facility's Technical Specifications and Updated Final Safety Analysis Report (USAR) with an emphasis on the application of Technical Specifications to the inspection program.

After the inspector has reviewed a USAR, a facility Technical Specifications, and a Safety Analysis Report, he/she should be able to specifically address the application of the references to the inspection program. The inspector may be asked to demonstrate your knowledge through discussions, interviews or quizzes. These discussion activities should be conducted with senior inspectors to illustrate recent application of regulatory guidance to the inspection program. Alternatively, discussions of a similar nature can be held with the inspector's supervisor. Completion of the discussion activities should be documented below.

Discussions completed: _____ _____
Supervisor Date

APPENDIX

Post-Qualification Recommended Training/Reading

The training courses and reading material included in this appendix are recommended to the SFPO staff for professional development following the successful completion of the qualification program. Selected material could be included in an IDP or considered for continuing training on a periodic basis. (For example, SFPO transportation inspectors attend headquarters and regional counterpart meetings and workshops.) This list is not all-inclusive and the staff is encouraged to consider alternatives. Training listed for a specific work group may well be of benefit to other work groups, and should be considered.

GENERAL ORIENTATION

Atomic Energy Act of 1954, as amended

Energy Reorganization Act of 1974, as amended

Nuclear Waste Policy Act of 1982, as amended

NUREG/BR-0195, "NRC Enforcement Manual"

NUREG/BR-0101, "Procedures for the Administration of Technical Assistance Contracts"

Attend the following meetings (time - about ½ day each):

Advisory Committee on Reactor Safeguards (ACRS)

Committee to Review Generic Requirements (CRGR)

WORK GROUP SPECIALTY TRAINING

Spent Fuel Licensing Section

Acquisition for Project Managers (also see **SIGNATURE CARD 7**):

Developing Proposal Evaluation Factors (3 hrs.)

Source Evaluation Panel Procedures (6 hrs.)

Negotiation of Project Terms and Conditions (6 hrs.)

Property Management (3 hrs.)

Closing Out the Contract (3 hrs)

Basic Health Physics Technology

Conflict Resolution

Ethics in Government

Managing Change

Small Group Dynamics

H-308, “Transportation of Radioactive Materials” (DOE)

Technical Review Sections A/B

Criticality

University of New Mexico, “Nuclear Criticality Safety” (short course)

LANL, “Basic Criticality Safety” (5-day course)

LANL, “Introduction to MCNP”

ORNL, “SCALE Criticality Safety (CSAS/KENO V.a)”

ORNL, “SCALE KENO VI Training Course”

AEA Technology, “Introduction to the MONK Code”

Materials

ASME/ASM Fracture Mechanics course

NACE Corrosion/Coatings course

ASME B&PVC, Section IX, “Welding and Brazing”

Shielding/Radiological Protection

Computer Codes: SAS2H, MICROSHIELD: ORIGEN 2.1, MCBEND, DORT/TORT, MCNP, SAS1, SAS4, ORIGENARP, ORIGENS.

H-117, “Introduction to Health Physics”

H-308, “Transportation of Radioactive Material”

ORNL, “SCALE Shielding & Source Terms”

Harvard School of Public Health, “Analyzing Risk: Science, Assessment, and Management”

Harvard School of Public Health, “Nuclear Emergency Planning”

Harvard School of Public Health, “Radioactivity in the Environment: Risk, Assessment, and Measurement”

EPA 410-R-92-001, “Manual of Protective Action Guides and Protective Actions for Nuclear Incidents”

Thermal

“ANSYS Introduction” *(Part 1)* course

“ANSYS Heat Transfer” course

Transportation and Storage Safety and Inspection Section

H-308, “Transportation of Radioactive Material”

ATTACHMENT 1

Revision History For IMC 1246 A06

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Com Acc
N/A	05/25/06	Added additional guidance for qualification board conduct and documentation	N/A	N/A	N/A